Virginia Title V Operating Permit

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, ' 10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Reynolds Metals Company
Facility Name:	Reynolds Metals Company – Richmond Foil Plant - South
Facility Location:	7th and Bainbridge Streets Richmond, VA 23224-0688
Registration Number:	50534
Permit Number:	PRO50534

July 29, 2002
Effective Date

July 29, 2007
Expiration Date

Robert G. Burnley
Director, Department of Environmental Quality

Signature Date

Reynolds Metals Company
Richmond Foil Plant - South
Permit Number: PRO50534
July 29, 2002

Table of Contents

I. FACILITY INFORMATION 1

II. EMISSION UNITS 3

III. FUEL BURNING EQUIPMENT REQUIREMENTS - (EMISSION UNIT ID# 001A, 001B AND 002) 9

A. LIMITATIONS 9
B. MONITORING AND RECORDKEEPING 9

IV. PROCESS EQUIPMENT REQUIREMENTS (LIMITATIONS, AND MONITORING AND RECORDKEEPING - (EMISSION UNIT ID # 005 - ROLLING MILLS E-H, J, K, 202-204, 206-211 AND 020 – ROLLING MILL L) 12

A. LIMITATIONS 12
B. MONITORING AND RECORDKEEPING 13

V. PROCESS EQUIPMENT REQUIREMENTS - (EMISSION UNIT ID#S 005 - ROLLING MILL H, 020 – ROLLING MILL L, 031 – ANNEALING OVENS #13 AND #14) 14

A. LIMITATIONS 14
B. MONITORING AND RECORDKEEPING 16

VI. PROCESS EQUIPMENT REQUIREMENTS - (EMISSION UNIT ID# 027 – ANNEALING OVEN #21) 19

A. LIMITATIONS 19
B. MONITORING AND RECORDKEEPING 20

VII. PROCESS EQUIPMENT REQUIREMENTS - (EMISSION UNIT ID# 029 – CIGARETTE MACHINE #5) 22

A. LIMITATIONS 22
B. MONITORING AND RECORDKEEPING 23
C. TESTING 26

VIII. PROCESS EQUIPMENT REQUIREMENTS - (EMISSION UNIT ID# 007 – ANNEALING OVEN #22) 26

A. LIMITATIONS 26
B. MONITORING AND RECORDKEEPING 27

IX. PROCESS EQUIPMENT REQUIREMENTS - (EMISSION UNIT ID# 023 – ANNEALING OVEN #23) 27

A. LIMITATIONS 27
B. MONITORING AND RECORDKEEPING 28

X. PROCESS EQUIPMENT REQUIREMENTS (LIMITATIONS, MONITORING AND RECORDKEEPING) - (EMISSION UNIT ID# 024 AND 025 – DSE-414A-86 RACT) 29

A. LIMITATIONS 29
B. MONITORING AND RECORDKEEPING 29

XI. PROCESS EQUIPMENT REQUIREMENTS (LIMITATIONS, MONITORING, RECORDKEEPING, AND REPORTING) - (EMISSION UNIT ID# 024) 29

A. LIMITATIONS 29
B. MONITORING AND RECORDKEEPING 30
C. REPORTING 31

XII. PROCESS EQUIPMENT REQUIREMENTS - (PART OF EMISSION UNIT ID# 024 – COLORING MACHINE #7 FOR WHEN USING THE NEW PRODUCT TRIAL) 31

A. LIMITATIONS 32
B. MONITORING AND RECORDKEEPING 32

XIII. PROCESS EQUIPMENT REQUIREMENTS AS PER 40 CFR PART 63 SUBPART KK - PRINTING AND PUBLISHING INDUSTRY MACT FOR A MAJOR SOURCE 33

A. LIMITATIONS 34
B. MONITORING AND RECORDKEEPING 34
C. TESTING AND WORK PRACTICES 34
D. REPORTING 34

XIV. PROCESS EQUIPMENT REQUIREMENTS - (EMISSION UNIT ID# 026 – REYSEAL MACHINE #1 (MFG. BY GENIK) 34

A. LIMITATIONS 34
B. MONITORING AND RECORDKEEPING 36

XV. PROCESS EQUIPMENT REQUIREMENTS - (EMISSION UNIT ID# I12 – WAX 1 & WAX 2 TANKS 36

A. RECORDS 37

XVI. FACILITY WIDE CONDITIONS 37

A. NEW SOURCE STANDARD FOR VISIBLE EMISSIONS 37
B. EXISTING SOURCE STANDARD FOR VISIBLE EMISSIONS 37
C. TESTING 37

XVII. INSIGNIFICANT EMISSION UNITS 39

XVIII. PERMIT SHIELD & INAPPLICABLE REQUIREMENTS 40

XIX. GENERAL CONDITIONS 41

A. FEDERAL ENFORCEABILITY 41
B. PERMIT EXPIRATION 41
C. RECORDKEEPING AND REPORTING 42
D. ANNUAL COMPLIANCE CERTIFICATION 42
E. PERMIT DEVIATION REPORTING 43
F. FAILURE/MALFUNCTION REPORTING 44
G. SEVERABILITY 44
H. DUTY TO COMPLY 44
I. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE 44
J. PERMIT ACTION FOR CAUSE 44
K. PROPERTY RIGHTS 45

L. DUTY TO SUBMIT INFORMATION 45
M. DUTY TO PAY PERMIT FEES 46
N. FUGITIVE DUST EMISSION STANDARDS 46
O. STARTUP, SHUTDOWN, AND MALFUNCTION 46
P. ALTERNATIVE OPERATING SCENARIOS 47
Q. INSPECTION AND ENTRY REQUIREMENTS 47
R. REOPENING FOR CAUSE 48
S. PERMIT AVAILABILITY 48
T. TRANSFER OF PERMITS 48
U. MALFUNCTION AS AN AFFIRMATIVE DEFENSE 48
V. PERMIT REVOCATION OR TERMINATION FOR CAUSE 49
W. DUTY TO SUPPLEMENT OR CORRECT APPLICATION 50
X. STRATOSPHERIC OZONE PROTECTION 50
Y. ACCIDENTAL RELEASE PREVENTION 50
Z. CHANGES TO PERMITS FOR EMISSIONS TRADING 50
AA. EMISSIONS TRADING 50

I. Facility Information

Permittee
Reynolds Metals Company
P.O. Box 24688
Richmond, VA 23224-0688

Responsible Official
Robert E. Perkins
Plant Manager

Facility
Reynolds Metals Company - Richmond Foil Plant - South
7th and Bainbridge Streets
Richmond, VA 23224-0688

Contact person
Mike Stoneberger
Environmental Engineer
(804) 230-5285

AIRS Identification Number: 51-760-0002

Facility Description: SIC Code 3353 –
The Richmond Foil Plant produces aluminum foil and converts aluminum foil into various products (i.e. confection wraps & etc.).

Foil Rolling Process: This process primarily reduces the thickness of the input coils by putting them through high speed mills under high pressure. During this process, approximately three to four passes of the coil is made through the mills depending on what type of product is produced. As the aluminum is rolled or passed through the mill, the aluminum becomes thinner and harder due to working with the foil. As a result, the aluminum has to be heated in annealing ovens to make it pliable or soft enough for further rolling to occur. The coils of aluminum are usually annealed twice, once when they first arrive at the foil plant, and again prior to the final packaging.

One of the final passes of the process occurs when the foil becomes so thin that in order to ensure a uniform thickness two rolls are stacked together and passed through the rolling mill. The resulting large coil is then slit to width for the various foil products. This is performed by mounting the doubled coil on a machine called a separator-slitter. Then a set of revolving blades make a continuous lengthwise cut through both sheets of foil, then the doubled foil sheets are separated and spooled into individual cores. The spooled foil

typically undergoes a final annealing prior to converting within the facility or packaging for shipment to customers.

Foil Converting Process: This process laminates the foil by adhering tissue, paper or polymer substrates to the foil along with performing graphic arts printing (packaging printing) on the resulting substrate. The resultant converted foil products may then be slit to width and spooled, cut into sheets or left “as is” before being packaged and shipped to customers.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
001A	001	National Boiler MB-613	3.34 MMBtu/hr	-	-	-	Grand-fathered
001B	001	Cyclotherm Boiler 300L-L2-43	10.0 MMBtu/hr	-	-	-	Grand-fathered
002	002	Keeler Boiler DK 9-8	25.1 MMBtu/hr	-	-	-	Grand-fathered
Process Equipment							

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
004	004	4-12, 16-20 Annealing Ovens		-	-	-	Exempt*
		#4 Annealing Oven	15 ton/batch				(No. 4)
		#5 Annealing Oven	25 ton/batch				
		#6 Annealing Oven	25 ton/batch				Grand-fathered
		#9 Annealing Oven	42.5 ton/batch				(Nos. 5, 6, 9, 12, 19 and 20)
		#12 Annealing Oven	65 ton/batch				
		#16 Electric Annealing Oven	20 ton/batch				Exempt (electric)
		#17 Electric Annealing Oven	20 ton/batch				(Nos. 16 – 18)
		#18 Electric Annealing Oven	20 ton/batch				
		#19 Annealing Oven	175 ton/batch				
		#20 Annealing Oven	125 ton/batch				

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
005	005	E-H, J, K, 202-204, 206-211 Rolling Mill E Rolling Mill F Rolling Mill G Rolling Mill H Rolling Mill J Rolling Mill K Rolling Mill 202 Rolling Mill 203 Rolling Mill 204 Rolling Mill 206 Rolling Mill 207 Rolling Mill 208 Rolling Mill 209 Rolling Mill 211	 2,860 ft/min 2,535 ft/min 3,000 ft/min 2,485 ft/min 4,660 ft/min 4,470 ft/min 2,535 ft/min 1,815 ft/min 2,215 ft/min 3,380 ft/min 1,995 ft/min 1,610 ft/min 2,255 ft/min 2,255 ft/min	-	-	-	DSE-597-87 RACT 11/14/01 NSR Permit for H Rolling Mill
020	007	Rolling Mill L	7,500 ft/min	-	-	-	DSE-597-87 RACT 11/14/01 NSR Permit
007	006	#22 Foil Annealing Oven associated natural gas burner	42.5 ton/batch 4.0 mmbtu/hr	-	-	-	DSE-976-84 11/15/84 NSR Permit
023	008	#23 Annealing Oven Associated natural gas burner	42 ton/batch 5.0 mmbtu/hr	-	-	-	4/2/02 NSR Permit

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
024	009	Gravure Printing – Includes the following:		-	-	-	DSE-414A-86 RACT
		Cigarette Machine #1	1,100 ft/min				
		Cigarette Machine #2	1,000 ft/min				DSE-412A-86
		Cigarette Machine #3	1,270 ft/min				RACT
		Coloring Machine #1 – when not exhausted to the oxidizer	700 ft/min				
		Coloring Machine #2 – when not exhausted to the oxidizer	610 ft/min				
		Coloring Machine #6 – when not exhausted to the oxidizer	700 ft/min				
		Coloring Machine #4	1,000 ft/min				
		Coloring Machine #7	700 ft/min				
		(When running new product trial with a web width of 72.5 inches)	350 ft/min				8/31/01 NSR Permit
		Glue Mounter #1	1,500 ft/min				
		Glue Mounter #23	800 ft/min				
		Glue Mounter #24 - when not exhausted to oxidizer	1,000 ft/min				
		Reyseal Machine #2	1,800 ft/min				
		Reyseal Machine #3	1,310 ft/min				
		Reyseal Machine #4	1,160 ft/min				
		Reyseal Machine #5	1,030 ft/min				

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
025	010	Coloring Machine #1 – when exhausted to the oxidizer Coloring Machine #2 – when exhausted to the oxidizer Coloring Machine #6 – when exhausted to the oxidizer Glue Mounter #24 – when exhausted to the oxidizer	700 ft/min 610 ft/min 700 ft/min 1,000 ft/min	ARI – Catalytic Oxidizer	CD001	VOC	DSE-414A-86 RACT DSE-412A-86 RACT
026	011	Reyseal Machine #1 (Manufactured by Genik)	1,200 ft/min	-	-	-	4/2/02 NSR Permit
027	016	#21 Annealing Oven associated 16.5 mmbtu/hr fuel burner 2.5 mmbtu/hr burner for thermal oxidizer	182.5 ton/batch	Surface Combustion – Thermal Oxidizer	CD002	VOC	8/4/95 NSR Permit
028	013	Miscellaneous Cleaning & Lubricating	Fugitive. No maximum rated capacity.	-	-	-	Grand-fathered
029	014	Cigarette Machine #5 (consisting of one rotogravure/coating station and one laminating station, with a web width of 53 inches)	700 ft/min	-	-	-	11/14/01 NSR Permit

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
030	015	Ink Room Mixing	Fugitive. No maximum rated capacity	-	-	-	Included in with the respective printing line emissions
031	017	Annealing Oven #13 Associated fuel burner Annealing Oven #14 Associated fuel burner	92.5 ton/batch 8.0 mmbtu/hr 92.5 ton/batch 8.0 mmbtu/hr	Surface Combustion – Thermal Oxidizer	CD003	VOC	11/14/01 NSR Permit
I12		Wax 1 Above-ground Storage Tank Wax 2 Above-ground Storage Tank	12,500 gallons 12,500 gallons	-	-	-	Exempt**

*: In 1974, Virginia State Air Pollution Control Board (SAPCB) regulations did not regulate VOC emissions; therefore, this oven was exempt from permitting requirements.

**: Permit exemption level for volatile organic compound storage operations; any tank of 40,000 gallons or less storage capacity.

III. Fuel Burning Equipment Requirements - (emission unit ID# 001A, 001B and 002)

A. Limitations

1. Emissions from the operation of the 3.34 mmbtu/hr National Boiler MB-613, the 10.0 mmbtu/hr Cyclotherm Boiler 300L-L2-43, and the 25.1 mmbtu/hr Keeler Boiler DK 9-8 (emission unit ID #s 001A, 001B, and 002) shall not exceed the limits specified below:

   001A (3.34 mmbtu/hr)
   PM-10
   $1.0906(3.34+10+25.1)^{-0.2594}$ = 0.42 lbs/mmbtu

   Sulfur Dioxide
   2.64 lbs/mmbtu

   001B (10.0 mmbtu/hr)
   PM-10
   $1.0906(3.34+10+25.1)^{-0.2594}$ = 0.42 lbs/mmbtu

   Sulfur Dioxide
   2.64 lbs/mmbtu

   002 (25.1 mmbtu/hr)
   PM-10
   $1.0906(3.34+10+25.1)^{-0.2594}$ = 0.42 lbs/mmbtu

   Sulfur Dioxide
   2.64 lbs/mmbtu

   (9 VAC 5-40-900, 9 VAC 5-40-930 and 9 VAC 5-80-110)

2. Visible emissions from each of the 3.34 mmbtu/hr National Boiler MB-613, the 10.0 mmbtu/hr Cyclotherm Boiler 300L-L2-43, and the 25.1 mmbtu/hr Keeler Boiler DK 9-8 (emission unit ID #s 001A, 001B, and 002) shall not exceed 20 percent opacity except for one six-minute period in any one hour of not more than 60 percent opacity. Failure to meet the preceding requirements because of the presence of water vapor shall not be a violation of these requirements.

   (9 VAC 5-40-940 and 9 VAC 5-80-110 B. of State Regulations)

B. Monitoring and Recordkeeping

1. The emissions from each of the 3.34 mmbtu/hr National Boiler MB-613, the 10.0 mmbtu/hr Cyclotherm Boiler 300L-L2-43, and the 25.1 mmbtu/hr Keeler Boiler DK 9-8 (emission unit ID

#s 001A, 001B, and 002) shall be observed visually at least once each calendar month [except when burning residual (Nos. 4, 5, or 6) oil which shall be increased to weekly evaluations] for at least a brief time period during normal operations to determine if there are normal visible emissions being met (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having above normal visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded. If a boiler(s) (emission unit ID#s 001A, 001B, and 002) is/are not operated during the calendar month, then no visible emission needs to be performed along with records documenting the boiler(s) were not operated during the calendar month.

(9 VAC 5-80-110 E. and F. of State Regulations)

2. Records shall be maintained of all oils which are burned in the 3.34 mmbtu/hr National Boiler MB-613, the 10.0 mmbtu/hr Cyclotherm Boiler 300L-L2-43, and the 25.1 mmbtu/hr Keeler Boiler DK 9-8 (emission unit ID #s 001A, 001B, and 002) along with the heat content and sulfur content of purchased oil and heat content of used oil combusted.

   (9 VAC 5-80-110 E. and F. of State Regulations)

3. The heat content of each oil burned in emission units ID #s: 001A, 001B, and 002 shall be inserted into one of the following respective equations, unless the heat content of each oil is documented to be above the respective oils listed (i.e. distillate (#1 $\geq$ 134,000 Btu/gal and #2 $\geq$ 138,000 Btu/gal), #4 residual oil $\geq$ 144,000 Btu/gal, #5 residual oil $\geq$ 146,000 Btu/gal, #6 residual oil $\geq$ 150,000 Btu/gal and used oil $\geq$ 150,000 Btu/gal). If the respective oil's heat content is above the previously listed heat contents, it will be presumed the fuel burning equipment is in compliance with the allowable particulate emissions for each fuel burning equipment unit when operating at less than rated capacity as according to 9 VAC 5-40-900 B.2 of the State Regulations :

   Distillate fuel oil:
   PM_{10} Emission Factor= 2 * lb of PM_{10}/thousand gals x (1 thousand gals/1,000 gal.) = 0.002 lb of PM_{10}/gal

   No. 4 fuel oil:
   PM_{10} Emission Factor = 7 * lb of PM_{10}/thousand gals x (1 thousand gals/1,000 gal.) = 0.007 lb of PM_{10}/gal

   No. 5 fuel oil:
   PM_{10} Emission Factor =9.19(%S)+3.22* = A lb of PM_{10}/thousand gals x (1 thousand gals/1,000 gal.) = B lb of PM_{10}/gal

   No. 6 fuel oil:
   PM_{10} Emission Factor= 10 * lb of PM_{10}/thousand gals x (1 thousand gals/1,000 gal.) = 0.010 lb of PM_{10}/gal

   Used oil:
   PM_{10} Emission Factor= 10 * lb of PM_{10}/thousand gals x (1 thousand gals/1,000 gal.) = 0.010 lb of PM_{10}/gal

*: Or current EPA, AP-42 emission factor.

Distillate fuel oil:
1 gal/heat content of fuel (MMBtu) X 0.002 lb of PM_{10}/gal = C lb of PM_{10}/MMBtu

No. 4 fuel oil:
1 gal/heat content of fuel (MMBtu) X 0.007 lb of PM_{10}/gal = C lb of PM_{10}/MMBtu

No. 5 fuel oil:
1 gal/heat content of fuel (MMBtu) X B lb of PM_{10}/gal = C lb of PM_{10}/MMBtu

No. 6 fuel oil:
1 gal/heat content of fuel (MMBtu) X 0.010 lb of PM_{10}/gal = C lb of PM_{10}/MMBtu

Used oil:
1 gal/heat content of fuel (MMBtu) X 0.010 lb of PM_{10}/gal = C lb of PM_{10}/MMBtu

(9 VAC 5-80-110 E. and K. of State Regulations)

4. The sulfur content as per supplier certification of each oil burned shall be inserted into one of the following respective equations, unless the sulfur content is ≤ 2.5%. If the sulfur content is ≤ 2.5%, it will be presumed to be in compliance:

Distillate fuel oil:

142(%S)* = A lb of SO_2/thousand gals x (1 thousand gals/1,000 gal.) = B lb of SO_2 /gal

No. 4 fuel oil

150 (%S)* = A lb of SO_2/thousand gals x (1 thousand gals/1,000 gal.) = B lb of SO_2/gal

No. 5 or No. 6 fuel oil

157(%S)* = A lb of SO_2/thousand gals x (1 thousand gals/1,000 gal.) = B lb of SO_2/gal

*: Or current EPA, AP-42 emission factor.
(9 VAC 5-80-110 E. and K. of State Regulations)

5. The heat content of each oil shipment (and all other fuels which are burned in emission unit ID #s: 001A, 001B, and 002) the results from the respective equation from condition no. 4 shall be inserted into one of the following respective equations to determine compliance with the fuel burning SO_2 standard, unless the sulfur content is ≤ 2.5%. If the sulfur content is ≤ 2.5%, it will be presumed to be in compliance:

Distillate or the use of No. 4 or No. 5 or No. 6 fuel oil:

1 gal/heat content of fuel (MMBtu) X B lb of SO_2/gal = C lb of SO_2 /MMBtu

(9 VAC 5-80-110 E. and K.)

IV. Process Equipment Requirements (Limitations, and Monitoring and Recordkeeping - (emission unit ID # 005 - Rolling Mills E-H, J, K, 202-204, 206-211 and 020 – Rolling Mill L)

A. Limitations

All limitations shall be conducted as outlined in the RACT Order DSE-597-87 (**Attachment A** of this permit) except where the Title V permit is more restrictive than the applicable limitation, the limitations shall then be conducted as outlined in the Title V permit.
(9 VAC 5-80-110)

Section E (of RACT Order DSE-597-87): Agreement and Order

E.2 RACT for the control of VOC emissions from the affected facilities shall be defined as the use of a normal paraffin lubricant containing a minimum of 88 percent saturated aliphatic compounds of carbon range C12 and above.
(9 VAC 5-80-110 and Condition 2 of Section E of RACT Order DSE-597-87)

E.4. **RACT compliance for the affected facilities shall be demonstrated by an analysis complying with the specifications of Item 2, Section E of a grab lubricant sample from any mill in operation at the time of sampling.** Gas chromatography is an acceptable procedure by which the analysis may be performed. Grab samples may be taken and analyzed by the Board or EPA.
(9 VAC 5-80-110 and Condition 4 of Section E of RACT Order DSE-597-87)

E.6. Reynolds Metals Company shall also maintain records to demonstrate compliance with Item 3, Section E of this Order and the records shall be made available to the Board Region V office (now called Piedmont Regional Office) upon request. **Reynolds shall purchase only normal paraffin lubricants for use as a rolling lubricant as defined by this order.** Reynolds shall maintain records of the lubricant purchases. Reynolds shall perform analyses of the as-applied lubricant monthly and maintain records.
(9 VAC 5-80-110 and Condition 6 of Section E of RACT Order DSE-597-87)

(Item 3, Section E (E.3.) states the following:

Beginning no later than May 1, 1988, the affected facilities shall comply with RACT as defined in this Order.
(9 VAC 5-80-110 and Condition 3 of Section E of RACT Order DSE-597-87))

E.7. **The temperature of the normal paraffin lubricant for the affected facilities shall be controlled and regulated to a maximum of 150^{o}F in the lubricant spray**

manifold at each mill and records kept and made available upon request to the Board Region V office (now called Piedmont Regional Office) to demonstrate compliance with this requirement. **Reynolds shall measure** and record **the lubricant temperature at each mill, as a minimum, daily.**
(9 VAC 5-80-110 and Condition 7 of Section E of RACT Order DSE-597-87)

B. Monitoring and Recordkeeping

All monitoring and recordkeeping shall be conducted as outlined in the RACT Order DSE-597-87 (**Attachment A** of this permit) except where the Title V permit is more restrictive than the applicable monitoring and recordkeeping, the monitoring and recordkeeping shall then be conducted as outlined in the Title V permit.
(9 VAC 5-80-110)

Section E (of RACT Order DSE-597-87): Agreement and Order

E.4. **RACT compliance** for the affected facilities shall be demonstrated by an analysis complying **with the specifications of Item 2, Section E of a grab lubricant sample from any mill in operation at the time of sampling. Gas chromatography is an acceptable procedure by which the analysis may be performed. Grab samples may be taken and analyzed by the Board or EPA.**
(9 VAC 5-80-110 and Condition 4 of Section E of RACT Order DSE-597-87)

E.6. **Reynolds Metals Company shall also maintain records to demonstrate compliance with Item 3, Section E of this Order and the records shall be made available to the Board Region V office (now called Piedmont Regional Office) upon request.** Reynolds shall purchase only normal paraffin lubricants for use as a rolling lubricant as defined by this order. **Reynolds shall maintain records of the lubricant purchases. Reynolds shall perform analyses of the as-applied lubricant monthly and maintain records.**
(9 VAC 5-80-110 and Condition 6 of Section E of RACT Order DSE-597-87)

(Item 3, Section E (E.3.) states the following:

Beginning no later than May 1, 1988, the affected facilities shall comply with RACT as defined in this Order.
(9 VAC 5-80-110 and Condition 3 of Section E of RACT Order DSE-597-87))

E.7. The temperature of the normal paraffin lubricant for the affected facilities shall be controlled and regulated to a maximum of 150^{o}F in the lubricant spray manifold at each mill and **records kept and made available upon request to the Board Region V office (now called Piedmont Regional Office) to demonstrate compliance with this requirement. Reynolds shall measure and record the lubricant temperature at each mill, as a minimum, daily.**

(9 VAC 5-80-110 and condition 7 of Section E of RACT Order DSE-597-87)

V. Process Equipment Requirements - (emission unit ID#s 005 - Rolling Mill H, 020 – Rolling Mill L, 031 – Annealing Ovens #13 and #14)

A. Limitations

1. Rolling oil temperature monitors and recorders are to be installed on the "H" (part of emission unit ID # 005) and "L" (emission unit ID # 020) mills in the oil supply line to the sprays. **Rolling oil temperature shall be controlled and regulated to a maximum of 145 ^{o}F in the spray manifold at each mill.**

   (9 VAC 5-80-110 and Condition 3 of 11/14/01 Permit)

2. Particulate volatile organic compound (VOC) emissions (mist) at the "L" (emission unit ID # 020) mill shall be controlled by an inertial impactor **designed to collect 90% of the hydrocarbon droplets**.

   (9 VAC 5-80-110 and Condition 4 of 11/14/01 Permit)

3. VOC emissions from the #13 and #14 (emission unit ID # 031) ovens shall be controlled by a direct-flame afterburner **with at least 90% destruction efficiency**. The afterburner shall be provided with adequate access for inspection.

   (9 VAC 5-80-110 and Condition 5 of 11/14/01 Permit)

4. **The #13 and #14 (emission unit ID # 31) annealing ovens afterburner shall have a capture efficiency of at least 95%. The afterburner shall maintain a minimum combustion zone temperature of 1400 degrees Fahrenheit and a minimum residence time of 0.5 seconds.** The afterburner shall be equipped with a device to continuously measure the temperature of the combustion zone.

   (9 VAC 5-80-110 and Condition 6 of 11/14/01 Permit)

5. The #13 & #14 (emission unit ID # 031) annealing ovens afterburner shall consume no more than 61.3 million ft^3 natural gas per year, calculated as the sum of each consecutive 12 month period.

   (9 VAC 5-80-110 and Condition 7 of 11/14/01 Permit)

6. The #13 (part of emission unit ID # 031) annealing oven fuel burner shall consume no more than 70 million ft^3 natural gas and 779 thousand gallons propane per year, calculated as the sum of each consecutive 12 month period.

   (9 VAC 5-80-110 and Condition 8 of 11/14/01 Permit)

7. The #14 (part of emission unit ID # 031) annealing oven fuel burner shall consume no more than 70 million ft^3 natural gas and 779 thousand gallons propane per year, calculated as the sum of each consecutive 12 month period.

   (9 VAC 5-80-110 and Condition 9 of 11/14/01 Permit)

8. The annual consumption of VOC in #13 and #14 (emission unit ID # 031) annealing ovens shall not exceed 85.0 tons/yr, calculated as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 10 of 11/14/01 Permit)

9. The approved fuel for the direct-flame afterburner is natural gas. A change in the fuel may require a permit to modify and operate.
   (9 VAC 5-80-110 and Condition 11 of 11/14/01 Permit)

10. The approved fuels for the #13 and #14 (emission unit ID # 031) annealing oven fuel burners are natural gas and propane. A change in the fuels may require a permit to modify and operate.
    (9 VAC 5-80-110 and Condition 12 of 11/14/01 Permit)

11. Emissions from the #13 and #14 (emission unit ID # 031) annealing ovens afterburner stack shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	0.7 lbs/hr	3.1 tons/yr*
Carbon Monoxide	0.2 lbs/hr	0.7 tons/yr*
Volatile Organic Compounds	22.1 lbs/hr	8.4 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 13 of 11/14/01 Permit)

12. Fugitive emissions from the operation of the #13 and #14 (emission unit ID # 031) annealing ovens shall not exceed the limits specified below:

Volatile Organic Compounds	11.6 lbs/hr	4.3 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 14 of 11/14/01 Permit)

13. Emissions from the #13 (part of emission unit ID # 031) annealing oven fuel burner shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	1.3 lbs/hr	5.5 tons/yr*
Carbon Monoxide	0.2 lbs/hr	0.8 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 15 of 11/14/01 Permit)

14. Emissions from the #14 (part of emission unit ID #031) fuel burner shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	1.3 lbs/hr	5.5 tons/yr*
Carbon Monoxide	0.2 lbs/hr	0.8 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 16 of 11/14/01 Permit)

15. Total emissions from the operation of the "L" mill (emission unit ID # 020) shall not exceed the limits specified below:

Volatile Organic Compounds	74.0 lbs/hr	146.0 tons/yr*

*Annual emissions shall be determined by purchase records of all rolling lubricants along with performance of a material balance.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 17 of 11/14/01 Permit)

16. Total emissions from the operation of the "H" mill (part of emission unit ID # 005) shall not exceed the limits specified below:

Volatile Organic Compounds	58.3 lbs/hr	92.0 tons/yr*

*Annual emissions shall be determined by purchase records of all rolling lubricants along with performance of a material balance.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 18 of 11/14/01 Permit)

17. Visible emissions from the #13 and #14 (emission unit ID # 031) annealing ovens afterburner shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 19 of 11/14/01 Permit)

B. Monitoring and Recordkeeping

1. **Rolling oil temperature monitors and recorders are to be installed on the "H" (part of emission unit # 005) and "L" (emission unit ID # 020) mills in the oil supply line to the**

sprays. Rolling oil temperature shall be controlled and regulated to a maximum of 145 ^{o}F in the spray manifold at each mill.

(9 VAC 5-80-110 and Condition 3 of 11/14/01 Permit)

2. The rolling oil temperature recorder shall be reviewed to determine if it is in compliance with the required 145 ^{o}F maximum temperature in the spray manifold at each mill and recorded once per day noting if the temperature was in compliance or not. If the temperature was found not to be in compliance, records shall be kept of the measures which were performed to correct it along with the time and date of the corrective action.

   (9 VAC 5-80-110 E and F)

3. An annual calibration shall be performed on the current thermocouples (for the rolling oil on the “H” (part of emission unit ID # 005) and “L” (emission unit ID # 020) mills in the oil supply line to the sprays) in accordance with written procedures recommended by the thermocouple manufacturer and annual records stating the date the calibration was performed along with the calibration results.

   (9 VAC 5-80-110 E and F)

4. Particulate volatile organic compound (VOC) emissions (mist) at the "L" (emission unit ID # 020) mill shall be controlled by an inertial impactor designed to collect 90% of the hydrocarbon droplets.

   (9 VAC 5-80-110 and Condition 4 of 11/14/01 Permit)

5. The amperage of the exhaust fan associated with the inertial impactor shall be recorded **and reviewed** once per day to demonstrate the inertial impactor is operating in compliance with the 90% collection efficiency of the hydrocarbon droplets by maintaining at minimum 40 motor amps (per LEG).

   (9 VAC 5-80-110 E and F)

6. VOC emissions from the #13 and #14 ovens (emission unit ID # 031) shall be controlled by a direct-flame afterburner with at least 90% destruction efficiency. The afterburner shall be provided with adequate access for inspection.

   (9 VAC 5-80-110 and Condition 5 of 11/14/01 Permit)

7. The seals on the #13 and #14 (emission unit ID # 031) annealing ovens shall be inspected for defective seals quarterly and replaced or repaired on an as needed basis along with noting the date and time of any action and the result.
   (9 VAC 5-80-110 E and F)

8. The #13 and #14 (emission unit ID # 031) annealing ovens afterburner combustion zone temperature will be monitored through an alarm system located on the afterburner operation control panel which has a set point temperature of 1425^{o}F. If the temperature alarm sounds, this indicates the afterburner's combustion zone temperature is below 1425^{o}F. Records will be kept of the date and time that the temperature alarm sounds and of the immediate corrective action taken.

   (9 VAC 5-80-110 E and F)

9. An annual calibration shall be performed on the current thermocouples for the afterburner for #13 and #14 (emission unit ID #031) annealing ovens in accordance with written procedures recommended by the thermocouple manufacturer and annual records stating the date the calibration was performed along with the calibration results.

   (9 VAC 5-80-110 E and F)

10. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with Section V of this permit. The content of and format of such records shall be arranged with the Director, Piedmont Regional Office. These records shall include, but are not limited to:

    a. The yearly throughput of metal charged to #13 and #14 (emission unit ID #031) annealing ovens, calculated as the sum of each consecutive 12 month period.

    b. The yearly consumption of VOC in the #13 and #14 (emission unit ID #031) annealing ovens (as determined by material balance), calculated as the sum of each consecutive 12 month period.

    c. The yearly throughput of natural gas and propane to the #13 and #14 (emission unit ID # 031) annealing ovens fuel burners, calculated as the sum of each consecutive 12 month period.

    d. The yearly throughput of natural gas to the #13 and #14 (emission unit ID # 031) annealing ovens afterburner, calculated as the sum of each consecutive 12 month period.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.
    (9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 20 of 11/14/01 Permit)

11. The permittee shall maintain records of all rolling lubricants purchased and perform a material balance demonstrating compliance with conditions 17 and 18 of this permit (11/14/01 permit). These records shall be available for inspection by DEQ and shall be current for the most recent five (5) years.

    (9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 21 of 11/14/01 Permit)

12. The emissions from the#13 and #14 (emission unit ID # 031) annealing ovens afterburner shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have normal visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. If the emissions unit is observed having above normal visible emissions, it shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.

    (9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

VI. Process Equipment Requirements - (emission unit ID# 027 – Annealing Oven #21)

A. Limitations

1. VOC emissions from the annealing oven #21 (emission unit ID # 027) shall be controlled by a single-chamber direct flame afterburner with a 90% hydrocarbon destruction efficiency. The afterburner shall be provided with adequate access for inspection.

    (9 VAC 5-80-110 and Condition 3 of 8/4/95 Permit)

2. The approved fuel for the annealing oven #21 (emission unit ID # 027) fuel burner and afterburner is natural gas. A change in the fuel may require a permit to modify and operate.

    (9 VAC 5-80-110 and Condition 4 of 8/4/95 Permit)

3. The annual consumption of VOC in annealing oven #21 (emission unit ID # 027) shall not exceed 80.0 tons per year, calculated as the sum of each consecutive 12 month period.

    (9 VAC 5-80-110 and Condition 6 of 8/4/95 Permit)

4. The annual throughput of natural gas to the annealing oven #21 (emission unit ID # 027) fuel burner shall not exceed 144.5 million ft^3/yr, calculated as the sum of each consecutive 12 month period.

    (9 VAC 5-80-110 and Condition 7 of 8/4/95 Permit)

5. Visible emissions from annealing oven #21 (emission unit ID # 027) (fugitives), afterburner stack or fuel burner stack shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

    (9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 12 of 8/4/95 Permit)

6. Emissions from the annealing oven #21 (emission unit ID # 027) afterburner stack shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	0.3 lbs/hr	1.1 tons/yr*
Volatile Organic		

Compounds	15.4 lbs/hr	7.6 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 9 of 8/4/95 Permit)

7. Fugitive emissions from the operation of annealing oven #21 (emission unit ID # 027) shall not exceed the limits specified below:

Volatile Organic Compounds	8.1 lbs/hr	4.0 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 10 of 8/4/95 Permit)

8. Emissions from the operation of the annealing oven #21 (emission unit ID # 027) fuel burner shall not exceed the limits specified below:

TSP/PM-10	0.2 lbs/hr	1.0 tons/yr*
Carbon Monoxide	0.6 lbs/hr	2.5 tons/yr *
Nitrogen Oxides (as NO_2)	2.3 lbs/hr	10.1 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 11 of 8/4/95 Permit)

B. Monitoring and Recordkeeping

1. **The afterburner for the annealing oven #21 (emission unit ID # 027) shall maintain a minimum combustion zone temperature of 1,400 degrees Fahrenheit and a minimum residence time of 0.5 seconds to determine compliance with the 90% hydrocarbon destruction efficiency.** The afterburner shall be equipped with a device to continuously measure the temperature of the combustion zone.
   (9 VAC 5-80-110)

2. The #21 (emission unit ID # 027) annealing oven afterburner combustion zone temperature will be monitored through an alarm system located on the afterburner operation control panel which has a set point temperature of 1425^{o}F. If the temperature alarm sounds, this indicates the afterburner's combustion zone temperature is below 1425^{o}F. Records will be kept of the

date and time that the temperature alarm sounds and of the immediate corrective action taken.

(9 VAC 5-80-110 E and F)

3. An annual calibration shall be performed on the #21 (emission unit ID # 027) afterburner thermocouple for the combustion zone temperature of the afterburner in accordance with written procedures recommended by the thermocouple manufacturer. Annual records will be kept stating the date the calibration was performed along with the calibration results.

   (9 VAC 5-80-110 E and F)

4. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Regional Office. These records shall include, but are not limited to:

   a. The yearly throughput of metal charged to annealing oven #21 (emission unit ID # 027), calculated as the sum of each consecutive 12 month period.

   b. The yearly consumption of VOC in annealing oven #21 (emission unit ID #027) (as determined by material balance), calculated as the sum of each consecutive 12 month period.

   c. The yearly throughput of natural gas to the annealing oven #21 (emission unit ID # 027) afterburner, calculated as the sum of each consecutive 12 month period, and

   d. The yearly throughput of natural gas to the annealing oven #21 (emission unit ID # 027) fuel burner, calculated as the sum of each consecutive 12 month period.

   These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.

   (9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 13 of 8/4/95 Permit)

5. The emissions from the annealing oven #21 (emission unit ID # 027) (fugitives), afterburner stack or fuel burner stack shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have normal visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. If the emissions unit is observed having above normal visible emissions, it shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.

   (9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

VII. Process Equipment Requirements - (emission unit ID# 029 – Cigarette Machine #5)

A. Limitations

1. **Emission Limits** - Volatile organic compound (VOC) emissions from the #5 (emission unit ID # 029) Cigarette Machine shall be controlled by use of low solvent or waterborne inks and coatings. The #5 (emission unit ID # 029) Cigarette Machine shall be provided with adequate access for inspection.

   (9 VAC 5-80-110 and Condition 3 of 11/14/01 Permit)

2. **Throughput** - The throughput of VOC to the #5 (emission unit ID # 029) Cigarette Machine shall be no more than 14.25 pounds per hour. The throughput of VOC to the #5 (emission unit ID # 029) Cigarette Machine shall be no more than 13.67 tons per year, calculated as the sum of each consecutive 12 month period.

   (9 VAC 5-80-110 and Condition 4 of 11/14/01 Permit)

3. **Fuel** - The approved auxiliary fuel for the dryers is natural gas. A change in the fuel may require a permit to modify and operate.

   (9 VAC 5-80-110 and Condition 5 of 11/14/01 Permit)

4. **Emission Limits** - Emissions from the operation of the #5 (emission unit ID # 029) Cigarette Machine shall not exceed the limits specified below:

Volatile Organic Compounds	14.25 lbs/hr	342 lbs/day	13.67 tons/yr*

   *Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

   (9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 6 of 11/14/01 Permit)

5. **Visible Emissions Limit** - Visible emissions from the #5 (emission unit ID # 029) Cigarette Machine shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

   (9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 7 of the 11/14/01 Permit)

B. Monitoring and Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with section VI.A. of this permit and shall be consistent with DEQ policy. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

   a. Daily records demonstrating compliance with the requirements in Air Quality Program Policies and Procedures, Number AQP-4 ***(Procedures for Maintaining Records for Surface Coating Operations and Graphic Arts Printing Processes)***.

      Air Quality Program Policies and Procedures, Number AQP-4 states the following:

      1. The owner shall maintain the following information at all times:

         a. Coating application system number.

         b. Hours of operation per day and per year.

         c. Method of application.

         d. Number and types of coats applied to the substrate.

         e. Drying method.

         f. Substrate type.

      2. The owner shall maintain the following information for **each coating** at all times:

         a. Supplier name, coating name and identification number.

         b. Coating density (pounds per gallon).

         c. Volatile content of coating as supplied (percent by weight).

         d. Water content of coating as supplied (percent by weight).

         e. Exempt solvent content of coating as supplied (percent by weight).

         f. Solids content of coating as supplied (percent by volume)

         g. Name of diluent added, if any.

         h. Identification number of diluent.

i. Diluent volatile organic compound density (pounds per gallon).

j. Volatile organic compound content of diluent (percent by weight).

k. Exempt solvent content of diluent (percent by weight).

l. Diluent/coating ratio (gallon diluent per gallon coating).

3. The owner shall maintain the following information for **each coating application system** on a **daily** basis:

a. Coating application system number.

b. Time period of each application run.

c. Coating identification number.

d. Amount of coating used.

e. Diluent and clean up solvent identification numbers.

f. Amount of diluent used.

g. Amount of clean up solvents used.

h. Calculated volatile organic compound emissions.

4. Additional recordkeeping requirements for surface coating operations with add-on control systems.

a. The owner shall maintain the following information at all times:

(1) Control device identification number and model number.

(2) Manufacturer.

(3) Installation date.

(4) Coating application systems controlled.

(5) Whether or not the control device is always in operation when the system it is serving is in operation.

(6) Type of control device.

(7) Destruction or removal efficiency.

(8) Date tested (if not tested, method of determining destruction efficiency).

(9) Design combustion temperature (degrees Fahrenheit) for thermal incinerators.

(10) Design exhaust gas temperature (degrees Fahrenheit), design temperature rise across catalyst bed (degrees Fahrenheit), and anticipated frequency of catalyst change for catalytic incinerators.

(11) Design inlet temperature of cooling medium (degrees Fahrenheit) and design exhaust gas temperature (degrees Fahrenheit) for a condenser.

(12) Design pressure drop across the adsorber at breakthrough, specific volatile organic compound species analyzed, and its concentration at breakthrough for a carbon adsorber.

(13) Emission test results, including inlet volatile organic compound concentration (parts per million), outlet VOC concentration (parts per million), method of concentration determination, and date of determination.

(14) Type and location of capture system.

(15) Capture efficiency (percent).

(16) Method of determining capture efficiency.

b. The yearly throughput of VOCs, calculated as the sum of each consecutive 12 month period.

c. Record demonstrating inks used meet the definitions in 9 VAC 5-40-5070 of compliant ink.

d. Records shall be kept demonstrating the VOC content of each coating material used in the #5 (emission unit ID # 029) Cigarette Machine. Acceptable records to demonstrate VOC content shall be the use of current material safety data sheets (MSDS) or current certified product data sheets (CPDS) provided the information contained therein is determined using approved EPA test methods (e.g. 40 CFR part 60 appendix A – EPA Method 24).

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 8 of 11/14/01 Permit)

2. The emissions from the #5 (emission unit ID # 029) Cigarette Machine shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. If the emissions unit is observed having any visible emissions, it shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
   (9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

C. Testing

1. The DEQ may require testing to determine if compliant ink meets the definition of compliant ink contained in 9 VAC 5-40-5070 of the regulations.
   (9 VAC 5-80-110)

VIII. Process Equipment Requirements - (emission unit ID# 007 – Annealing Oven #22)

A. Limitations

1. The yearly production of (emission unit ID # 007) annealled aluminum foil shall not exceed 5,256 tons.
   (9 VAC 5-80-110, and Part I Specific Condition 4 of 11/15/84 Permit)

2. The approved fuel for the (emission unit ID # 007) annealing oven burner is natural gas. A change in the fuel may require a permit to modify and operate.
   (9 VAC 5-80-110 and Part I Specific Condition 6 of 11/15/84 Permit)

3. Emissions from the operation of the (emission unit ID # 007) annealing oven shall not exceed the limitations specified below:

Volatile Organic Compounds	3.9 lbs/hr	12.0 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Part I Specific Condition 5 of 11/15/84 Permit)

4. Visible emissions from the (emission unit ID # 007) annealing oven process shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.
   (9 VAC 5-50-80 and 9 VAC 5-80-110)

B. Monitoring and Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrated compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

   a. The yearly production of annealed aluminum foil from the #22 (emission unit ID # 007) annealing oven, calculated monthly as the sum of each consecutive twelve (12) month period.

   b. The yearly consumption of VOC in the #22 (emission unit ID #007) annealing oven (as determined by material balance), calculated as the sum of each consecutive 12 month period.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-50-50, 9 VAC 5-80-110)

2. The emissions from the #22 (emission unit ID # 007) annealing oven process shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have normal visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. If the emissions unit is observed having above normal visible emissions, it shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
   (9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

IX. Process Equipment Requirements - (emission unit ID# 023 – Annealing Oven #23)

A. Limitations

1. The production of annealed aluminum (emission unit ID # 023) shall not exceed 5,256 tons per year, calculated monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 3 of 4/2/02 Permit)

2. The approved fuel for the oven is natural gas. A change in the fuel may require a permit to modify and operate.
   (9 VAC 5-80-110 and Condition 4 of 4/2/02 Permit)

3. Emissions from the operation of the annealing oven (reference 23 – emission unit ID # 023) shall not exceed the limitations specified below:

Volatile Organic Compounds	2.0 lbs/hr	9.0 tons/yr*

   *Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

   (9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 5 of 4/2/02 Permit)

4. Visible emissions from (emission unit ID # 023) annealing oven shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.
   (9 VAC 5-50-80 and 9 VAC 5-80-110)

B. Monitoring and Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

   a. Annual production of annealed aluminum from the #23 (emission unit ID #023) annealing oven, calculated monthly as the sum of each consecutive twelve (12) month period.

   b. Annual consumption of VOC in the #23 (emission unit ID #023) annealing oven (as determined by material balance), calculated as the sum of each consecutive 12 month period.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-50-50, 9 VAC 5-80-110 and condition 6 of the 4/2/02 Permit)

2. The emissions from the #23 (emission unit ID # 23) annealing oven process shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have normal visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. If the emissions unit is observed having above normal visible emissions, it shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as

expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
(9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

X. Process Equipment Requirements (Limitations, Monitoring and Recordkeeping) - (emission unit ID# 024 and 025 – DSE-414A-86 RACT)

A. Limitations

All limitations shall be conducted as outlined in the RACT Order DSE-414A-86 (**Attachment B** of this permit) except where the Title V permit is more restrictive than the applicable limitation, the limitations shall then be conducted as outlined in the Title V permit.
(9 VAC 5-80-110)

Section E (of RACT Order DSE-414A-86): Agreement and Order

E.2 In SIP Order DSE-412A-86 for the Foil Plant Section E, Conditions 2, 3, 4, the facilities subject to this Order are designated and the RACT emission limits are specified. Reynolds agrees to meet, or as appropriate continue to meet, the requirements set in DSE-412A-86 for the specified equipment, except any station on coloring machines 1, 2, and 6 In-Line Machine 24 when it is not running low solvent technology, beginning on September 1, 1986.
(9 VAC 5-80-110 and Condition 2 of Section E of RACT Order DSE-414A-86)

B. Monitoring and Recordkeeping

All monitoring and recordkeeping shall be conducted as outlined in the RACT Order DSE-414A-86 (**Attachment B** of this permit) except where the Title V permit is more restrictive than the applicable monitoring and recordkeeping, the monitoring and recordkeeping shall then be conducted as outlined in the Title V permit.
(9 VAC 5-80-110)

XI. Process Equipment Requirements (Limitations, Monitoring, Recordkeeping, and Reporting) - (emission unit ID# 024)

A. Limitations

All limitations shall be conducted as outlined in the RACT Order DSE-412A-86 (**Attachment C** of this permit) except where the Title V permit is more restrictive than the applicable limitation, the limitations shall then be conducted as outlined in the Title V permit.
(9 VAC 5-80-110)

Section E (of RACT Order DSE-412A-86): Agreement and Order

E.3 The facilities at the Plant which are subject to this Order are (emission unit ID. 024): Cigarette machines Nos. 1, 2, 3, 4 (now called coloring machine no. 4); coloring machine No. 7; glue mounters Nos. 1, and 23; Reyseal machines Nos. 2, 3, 4 and 5. In addition, any station on coloring machines either 1, 2, 6 or in-line machine No. 24 which is not being exhausted to the incinerator shall be subject to the requirements of Conditions 4 and 5.
(9 VAC 5-80-110 and Condition 3 of Section E of RACT Order DSE-412A-86)

E.4 The reduction in volatile organic compound emissions from the affected facilities at the Plant shall not be less than sixty-five (65) percent, by weight on a daily basis over the historical amount of solvent used to apply the same amount of solids.

Across line averaging of emission reductions will be utilized to determine compliance with the specified daily emission reduction requirement.
(9 VAC 5-80-110 and Condition 4 of Section E of RACT Order DSE-412A-86)

E.5 Compliance with requirements of Condition 3 and 4 will be determined by the use of a "Daily VOC Model". The model will calculate daily emission reductions by comparing actual solvent usings to the historical amount of solvent material which would have been used. The model will calculate daily emissions by measuring, on a job basis, all VOC bearing materials consumed. Total job usings shall be apportioned to individual days based on production records. The daily historical amount of solvent which would have been used shall be calculated by factors relating the daily amount of applied solids and the historical amount of solvent required to apply a pound of solids. The historical factors and compliance calculations are shown in Attachment A (of RACT order DSE-412A-86).
(9 VAC 5-80-110 and Condition 5 of Section E of RACT Order DSE-412A-86)

B. Monitoring and Recordkeeping

All monitoring and recordkeeping shall be conducted as outlined in the RACT Order DSE-412A-86 (**Attachment C** of this permit) except where the Title V permit is more restrictive than the applicable monitoring and recordkeeping, the monitoring and recordkeeping shall then be conducted as outlined in the Title V permit.
(9 VAC 5-80-110)

Section E (of RACT Order DSE-412A-86): Agreement and Order

E.4 The reduction in volatile organic compound emissions from the affected facilities at the Plant shall not be less than sixty-five (65) percent, by weight on a daily basis over the historical amount of solvent used to apply the same amount of solids.

Across line averaging of emission reductions will be utilized to determine compliance with the specified daily emission reduction requirement.
(9 VAC 5-80-110 and Condition 4 of Section E of RACT Order DSE-412A-86)

E.5 Compliance with requirements of Condition 3 and 4 will be determined by the use of a "Daily VOC Model". The model will calculate daily emission reductions by comparing actual solvent usings to the historical amount of solvent material which would have been used. The model will calculate daily emissions by measuring, on a job basis, all VOC bearing materials consumed. Total job usings shall be apportioned to individual days based on production records. The daily historical amount of solvent which would have been used shall be calculated by factors relating the daily amount of applied solids and the historical amount of solvent required to apply a pound of solids. The historical factors and compliance calculations are shown in Attachment A (of RACT order DSE-412A-86).
(9 VAC 5-80-110 and Condition 5 of Section E of RACT Order DSE-412A-86)

E.6 **Records consisting of information as to the calculated daily reduction in emissions of volatile organic compounds from the affected facilities, except those emissions treated by add-on control equipment at the Plant, shall be kept available at the Plant for at least a two year time period.** Reynolds shall provide the Board an exception report at the end of any quarter when the conditions of Section E, Condition 2, 3 and 4 of this Order DSE-412A-86 are not met.
(9 VAC 5-80-110 and Condition 6 of Section E of RACT Order DSE-412A-86)

C. Reporting

All reporting shall be conducted as outlined in the RACT Order DSE-412A-86 (**Attachment C** of this permit) except where the Title V permit is more restrictive than the applicable reporting, the reporting shall then be conducted as outlined in the Title V permit.
(9 VAC 5-80-110)

Section E (of RACT Order DSE-412A-86): Agreement and Order

E.6 Records consisting of information as to the calculated daily reduction in emissions of volatile organic compounds from the affected facilities, except those emissions treated by add-on control equipment at the Plant, shall be kept available at the Plant for at least a two year time period. **Reynolds shall provide the Board an exception report at the end of any quarter when the conditions of Section E, Condition 2, 3 and 4 of this Order DSE-412A-86 are not met.**
(9 VAC 5-80-110 and Condition 6 of Section E of RACT Order DSE-412A-86)

XII. Process Equipment Requirements - (Part of emission unit ID# 024 – Coloring Machine #7 for when using the new product trial)

A. Limitations

1. **Emission Controls: Coating** – Volatile organic compound (VOC) emissions from the new product trial shall be controlled by limiting the throughput of trial material as specified in permit condition number 4 (of the 8/31/01 NSR permit).
   (9 VAC 5-80-110 and Condition 3 of 8/31/01 Permit)

2. **Throughput** - The throughput of aluminum foil during the new product trial coating at (part of emission unit ID # 024) Coloring Machine # 7 shall not exceed 2,628,000 yards per year, calculated monthly as the sum of each consecutive 12 month period. The VOCs applied to (part of emission unit ID # 024) Coloring Machine # 7 for the new product trial shall be no more than four tons per year, calculated monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 4 of 8/31/01 Permit)

3. **Emission Limits** - Emissions from the operation of the (part of emission unit ID # 024) Coloring Machine # 7 during the new product trial shall not exceed the limits specified below:

Volatile Organic Compounds	41.1 lbs/hr	986 lbs/day	4 tons/yr*

   *Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

   These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 2, 3 and 4 of the 8/31/01 Permit.
   (9 VAC 5-80-110 and Condition 5 of 8/31/01 Permit)

4. **Visible Emission Limit** - Visible emissions from (part of emission unit ID # 024) Coloring Machine #7 shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
   (9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 7 of the 8/31/01 Permit)

B. Monitoring and Recordkeeping

1. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Regional Office. These records shall include, but are not limited to:

   a. Annual throughput of yards of aluminum foil used during the trial, calculated monthly as the sum of each consecutive 12 month period.

   b. Records shall be kept demonstrating the VOC content, HAP content, water content, and solids content of each coating used in the new product trial. Acceptable records to demonstrate VOC content, HAP content, water content and solids content shall be the use of current material safety data sheets (MSDS) or current certified product data sheets (CPDS) of which the information contained therein is determined using approved EPA test methods (e.g. 40 CFR part 60 appendix A – EPA Method 24).

   c. Hourly and annual emissions (in pounds for hourly emissions and tons for yearly emissions) of the compound listed in Condition 5 (of the 8/31/01 NSR permit). Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

   d. Daily records demonstrating compliance with the requirements in Air Quality Program Policies and Procedures document AQP-4 (See B.1.a. of monitoring and recordkeeping for #5 cigarette machine (emission unit ID #029) as per Title V permit), Procedures for Maintaining Records for Surface Coating Operations and Graphic Arts Printing Processes.

   These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
   (9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 8 of 8/31/01 Permit)

XIII. Process Equipment Requirements as per 40 CFR Part 63 Subpart KK - Printing and Publishing Industry MACT for a Major Source

(emission unit ID# 024 Sources included under emission unit ID#024, (Cigarette Machine #1, Cigarette Machine #2, Cigarette Machine #3, Coloring Machine #1 – <u>when not exhausted to the oxidizer,</u> Coloring Machine #2 – <u>when not exhausted to the oxidizer,</u> Coloring Machine #6 – <u>when not exhausted to the oxidizer,</u> Coloring Machine #4, Coloring Machine #7, Glue Mounter #1, Glue Mounter #23, Glue Mounter #24 <u>when not exhausted to oxidizer</u>, Reyseal Machine #2, Reyseal Machine #3, Reyseal Machine #4, and Reyseal Machine #5), (emission unit ID #025 Sources included under emission unit ID#025, Coloring Machine #1 – <u>when exhausted to the oxidizer</u>, Coloring Machine #2 – <u>when exhausted to the oxidizer</u>, Coloring Machine #6 – <u>when exhausted to the oxidizer</u>, Glue Mounter #24 – <u>when exhausted to oxidizer</u>, (Emission Unit ID #026, Reyseal Machine #1 (Manufactured by Genik)), and (Emission Unit ID #029 Cigarette Machine #5).

A. Limitations

1. All limitations shall be conducted as outlined in **Attachment D** of this permit to demonstrate compliance with 40 CFR 63 Subpart KK.
   (9 VAC 5-80-110 and 40 CFR Subpart KK)

B. Monitoring and Recordkeeping

1. All monitoring and recordkeeping shall be conducted as outlined in **Attachment D** of this permit to demonstrate compliance with 40 CFR 63 Subpart KK.
   (9 VAC 5-80-110 and 40 CFR 63 Subpart KK)

C. Testing and Work practices

1. All testing and work practices shall be conducted as outlined in **Attachment D** of this permit to demonstrate compliance with 40 CFR 63 Subpart KK.
   (9 VAC 5-80-110 and 40 CFR 63 Subpart KK)

D. Reporting

1. All reporting shall be shall be conducted as outlined in **Attachment D** of this permit to demonstrate compliance with 40 CFR 63 Subpart KK.
   (9 VAC 5-80-110 and 40 CFR 63 Subpart KK)

XIV. Process Equipment Requirements - (emission unit ID# 026 – Reyseal Machine #1 (mfg. by Genik)

A. Limitations

1. Volatile Organic Compound emissions from the (emission unit ID # 026) wax laminator coatings shall be controlled by limiting the volatile portion of each coating to a maximum of 25 percent by volume of volatile organic compounds.
   (9 VAC 5-80-110 and Condition 3 of 4/2/02 Permit)

2. Volatile Organic Compound throughput through the (emission unit ID # 026) wax laminator shall not exceed 240.0 pounds per hour nor shall it exceed 9.5 tons per year, calculated monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 4 of 4/2/02 Permit)

3. Visible emissions from the (emission unit ID # 026) wax laminator shall not exceed 5 percent opacity, except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA method 9 (reference 40 CFR 60, Appendix A).

   (9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 6 of 4/2/02 Permit)

4. Emissions from the operation of the (emission unit ID # 026) wax laminator shall not exceed the limitations specified below:

Volatile Organic Compounds	240.0 lbs/hr	9.5 tons/yr*

   *Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

   (9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 5 of 4/2/02 Permit)

B. Monitoring and Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

   a. Records shall be kept demonstrating the VOC content of each coating material used in the (emission unit ID # 026) Reyseal Machine #1 (mfg. by Genik) which shall include the percent by volume of volatile organic compounds. Acceptable records to demonstrate VOC content shall be the use of current material safety data sheets (MSDS) or current certified product data sheets (CPDS) provided the information contained therein is determined using approved EPA test methods (e.g. 40 CFR part 60 appendix A – EPA Method 24).

   b. Annual throughput of Volatile Organic Compound through the (emission unit ID # 026) wax laminator, calculated monthly as the sum of each consecutive 12 month period.

   c. **Daily records demonstrating compliance with the requirements in Air Quality Program Policies and Procedures, Number AQP-4 (See B.1.a. of monitoring and recordkeeping for #5 cigarette machine (emission unit ID #029) as per Title V permit), Procedures for Maintaining Records for Surface Coating Operations and Graphic Arts Printing Processes).**

   d. A coating-by-coating monthly material balance of all coatings used. Annual throughputs shall be calculated monthly as the sum of each consecutive 12 month period.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 7 of 4/2/02 Permit)

2. The emissions from the (emission unit ID # 026) wax laminator shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. If the emissions unit is observed having any visible emissions, it shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
   (9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

XV. Process Equipment Requirements - (emission unit ID# I12 – Wax 1 & Wax 2 Tanks

A. Records

1. Records shall be kept readily accessible of each of the Wax 1 and Wax 2 storage tanks (emission unit ID #I12) showing the dimension of each of the storage tanks and an analysis showing the capacity of each of the storage tanks.
   (9 VAC 5-80-110 and 40 CFR 60.110b(a))

XVI. Facility Wide Conditions

A. New source standard for visible emissions

Unless otherwise specified in this part, no owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-50-80)

B. Existing source standard for visible emissions

Unless otherwise specified in this part, no owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-40-80)

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
   (9 VAC 5-40-30 or 9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows, or alternate EPA approved test methods as approved by DEQ:
   The following table is only required for those pollutants that have emission limits.

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a

VOC	EPA Methods 24, 24a
NOx	EPA Method 7
SO2	EPA Method 6
CO	EPA Method 10
PM/PM10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

XVII. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
I01	Aqueous Parts Cleaner in C Building Maintenance Area	9 VAC 5-80-720 A24		
I02	Scrap Balers and Briquetters	9 VAC 5-80-720 B1	PM	
I03	Trim Handling System for Mills, Slitters, Separators, Sheet cutters	9 VAC 5-80-720 B1	PM	
I04	Core Cutting	9 VAC 5-80-720 B1	PM	
I05	Dust Collector on Shaper in Carpenter Shop	9 VAC 5-80-720 B1	PM	
I06	Metal Scrap Saw Station	9 VAC 5-80-720 B1	PM	
I07	Oil Water Separators (3)	9 VAC 5-80-720 B2	VOC	
I08	Paint Shop Ventilation Hood	9 VAC 5-80-720 B2	VOC	
I09	Four Non-Halogenated Solvent Parts Washers in Maintenance Areas	9 VAC 5-80-720 B2	VOC	
I10	Steam Cabinets	9 VAC 5-80-720 B2	VOC	
I11	Storage Tanks – AST #B1 & D1 – D11, three 7,500 gallon tanks, eight 10,000 gallon tanks	9 VAC 5-80-720 B2	VOC	
I13	Storage Tanks – AST #D12 – D14. Three 200 gallon tanks	9 VAC 5-80-720 C3	VOC	200 gallons
I14	Storage Tanks – AST #E1 – E3	9 VAC 5-80-720 B2	VOC	

I15	Natural Gas Burners Associated with Presses Laminators, Annealing ovens and oxidizers (16) 0.15 MMBtu/hr (4) 0.25 MMBtu/hr (24) 0.30 MMBtu/hr (48) 0.33 MMBtu/hr (6) 0.40 MMBtu/hr (36) 0.50 MMBtu/hr (2) 0.53 MMBtu/hr (12) 0.67 MMBtu/hr (1) 0.90 MMBtu/hr (5) 1.00 MMBtu/hr (1) 1.20 MMBtu/hr (18) 1.25 MMBtu/hr (1) 1.50 MMBtu/hr (4) 1.60 MMBtu/hr (3) 2.00 MMBtu/hr (1) 3.00 MMBtu/hr (7) 4.00 MMBtu/hr	9 VAC 5-80-720 B1 & B2	PM, SO2, NOx, CO, VOC	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

XVIII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of applicability
None		

Nothing in this permit shield shall alter the provisions of ' 303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to ' 114 of the federal Clean Air Act, (ii) the Board pursuant to ' 10.1-1314 or ' 10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to ' 10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

XIX. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless a timely and complete renewal application consistent, with 9 VAC 5-80-80, has been submitted, to the Department, by the owner, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80 , until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F1 and F5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

   f. The operating conditions existing at the time of sampling or measurement.

   (9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
   (9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than [**March 1** and **September 1**] of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

   b. All deviations from permit requirements. For purposes of this permit, a "deviation" means any condition determined by observation, data from any monitoring protocol or any other monitoring which is required by the permit that can be used to determine compliance. Deviations include exceedances documented by continuous emission monitoring or excursions from control performance indicators documented through periodic or compliance assurance monitoring.

   (9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of

compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to ' 114(a)(3) and ' 504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. A description of the means for assessing or monitoring the compliance of the source with its emissions limitations, standards, and work practices.

3. The identification of each term or condition of the permit that is the basis of the certification.

4. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the certification period.

5. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

6. The status of compliance with the terms and conditions of this permit for the certification period.

7. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall report by the next business day any deviations from permit requirements or any excess emissions, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.
(9 VAC 5-80-110 F.2)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours notify the Director, Piedmont Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. The portion of the facility which is subject to the provision of Article 4 Chapter 3 or Article 5 Chapter 3 (toxics) shall shut down immediately upon request of the DEQ. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Piedmont Region.
(9 VAC 5-20-180)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Action for Cause

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(9 VAC 5-80-110 G.4)

2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:

   a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is the potential of, a resulting emissions increase;

   b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;

   c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emission cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;

   d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;

   e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting;

   f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C);

   g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a(1) and by 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.

(9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the board, within a reasonable time, any information that the board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the board along with a claim of confidentiality.

(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355.
(9 VAC 5-80-110 H)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited, to the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and

5. The prompt removal of spilled or traced dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-50)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80 Article 1.
(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the board if additional federal requirements become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   A. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   B. The permitted facility was at the time being properly operated.

   C. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

   D. The permittee notified the board of the malfunction within two working days following the time when the emissions limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. The notification fulfills the requirement of 9 VAC 5-80-110 F.2. b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirements under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The board may suspend, under such conditions and for such period of time as the board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substance subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A - F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required, under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110 except subsection N shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

Attachment D:

The following emission units are subject to [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825], Subpart KK – National Emission Standards for the Printing and Publishing Industry Standards: Product and packaging rotogravure and wide-web flexographic printing:

Emission Unit ID #024

Sources included under emission unit ID#024:
Cigarette Machine #1
Cigarette Machine #2
Cigarette Machine #3

Coloring Machine #1 – when not exhausted to the oxidizer
Coloring Machine #2 – when not exhausted to the oxidizer
Coloring Machine #6 – when not exhausted to the oxidizer
Coloring Machine #4
Coloring Machine #7

Glue Mounter #1
Glue Mounter #23
Glue Mounter #24 - when not exhausted to oxidizer

Reyseal Machine #2
Reyseal Machine #3
Reyseal Machine #4
Reyseal Machine #5

Emission Unit ID #025

Sources included under emission unit ID#025:
Coloring Machine #1 – when exhausted to the oxidizer
Coloring Machine #2 – when exhausted to the oxidizer
Coloring Machine #6 – when exhausted to the oxidizer

Glue Mounter #24 – when exhausted to the oxidizer

Emission Unit ID #026:
Reyseal Machine #1
(Manufactured by Genik)

Emission Unit ID #029:
Cigarette Machine #5

I. Emission Limitations

#001 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825] Subpart KK – National Emission Standards for the Printing and Publishing Industry Standards: Product and packaging rotogravure and wide-web flexographic printing.

The owner/operator shall limit emissions to no more than five percent of the organic HAP applied for the month; or to no more than four percent of the mass of inks, coatings, varnishes, adhesives, printers, solvents, reducers, thinners, and other materials applied for the month; or to no more than 20 percent of the mass of solids applied for the month; or to a calculated equivalent allowable mass based on the organic HAP and solids contents of the inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied for the month.

II. Testing Requirements

#002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.827]
Subpart KK – National Emission Standards for the Printing and Publishing Industry

Performance Test Methods

In the event that a control device is used for demonstration of compliance with a standard, a performance test of a control device to determine destruction efficiency for the purpose of meeting the requirements of Condition #001 shall be conducted by the owner or operator in accordance with the following:

(a) An initial performance test to establish the destruction efficiency of an oxidizer and the associated efficiency of an oxidizer and the associated combustion zone temperature for a thermal oxidizer and the associated catalyst bed inlet temperature for a catalytic oxidizer shall be conducted and the data reduced in accordance with the following reference methods and procedures:

(1) Method 1 or 1A of 40 CFR part 60, appendix A is used for sample and velocity traverses to determine sampling locations.

(2) Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A is used to determine gas volumetric flow rate.

(3) Method 3 of 40 CFR part 60, appendix A is used for gas analysis to determine dry molecular weight.

(4) Method 4 of 40 CFR part 60, appendix A is used to determine stack gas moisture.

(5) Methods 2, 2A, 3, and 4 of 40 CFR part 60, appendix A shall be performed, as applicable, at least twice during each test period.

(6) Method 25 of 40 CFR part 60, Appendix A, shall be used to determine organic volatile matter concentration. The owner or operator shall submit notice of the intended test method to the Department for approval along with notice of the performance test required under this section. The owner or operator may use Method 25A of 40 CFR part 60, appendix A, if

(i) An exhaust gas organic volatile matter concentration of 50 parts per million by volume (ppmv) or less is required to comply with the standards of condition #001, or

(ii) The organic volatile matter concentration at the inlet to the control system and the required level of control are such to result in exhaust gas organic volatile matter concentrations of 50 ppmv or less, or

(iii) Because of the high efficiency of the control device, the anticipated organic volatile matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.

(7) Each performance test shall consist of three separate runs; each run conducted for at least one hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining organic volatile matter concentrations and mass flow rates, the average of results of all runs shall apply.

(8) Organic volatile matter mass flow rates shall be determined using Equation 20 of 40 CFR Subpart 63.827.

(9) Emission control device efficiency shall be determined using Equation 21 of 40 CFR Subpart 63.827.

(b) The owner or operator shall record such process information as may be necessary to determine the conditions of the performance test. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(c) For the purpose of determining the value of the oxidizer operating parameter that will demonstrate continuing compliance, the time-weighted average of the values recorded during the performance test shall be computed. For an oxidizer other than catalytic oxidizer, the owner or operator shall establish as the operating parameter the minimum combustion temperature. For a catalytic oxidizer, the owner or operator shall establish as the operating parameter the minimum gas temperature upstream of the catalyst bed. These minimum temperatures are the operating parameter values that demonstrate continuing compliance with the requirements of Condition #001.

III. Monitoring Requirements

#003 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825]
Subpart KK – National Emission Standards for the Printing and Publishing Industry
Standards: Product and packaging rotogravure and wide-web flexographic printing.

When demonstrating compliance in accordance with Condition #004(f) (§63.825(c)(1)(xi)(D), or 63.825(d)(1)(xi)(D), owners or operators may calculate the monthly allowable HAP emissions, for demonstrating compliance as follows:

(a) Determine the as-purchased mass of each ink, coating, varnish, adhesive, printer, and other solids-containing material applied each month.

(b) Determine the as-purchased solids content of each ink, coating, varnish, adhesive, primer, and other solids-containing material applied each month.

(c) Determine the as-purchased mass fraction of each ink, coating, varnish, adhesive, primer, and other solids-containing material which was applied at 20 weight-percent or greater solids content, on as-applied basis.

(d) Determine the total mass of each solvent, diluent, thinner, or reducer added to materials which were applied at less than 20 weight-percent solids content, on an as-applied basis, each month.

(e) Calculate the monthly allowable HAP emissions, Ha. using Equation 17 of CFR Subpart 68.825.

#004 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825]
Subpart KK – National Emission Standards for the Printing and Publishing Industry
Standards: Product and packaging rotogravure and wide-web flexographic printing.

The owner/operator shall demonstrate compliance with this standard by following one of the following procedures:

(a) Demonstrate that each ink, coating, varnish, adhesive, primer, solvent, diluent, reducer, thinner, and other material applied during the month contains no more than 0.04 weight-fraction organic HAP, on an as-purchased basis, as determined in accordance with 40 CFR Subpart 63.827.

(b) Demonstrate that each ink, coating, varnish, adhesive, primer, and other solids-containing material applied during the month contains no more than 0.04 weight-fraction organic HAP, on a monthly average as-applied basis as determined in accordance with paragraphs (b)(1) or (2) below. The owner or operator shall calculate the as-applied HAP content of materials which are reduced, thinned, or diluted prior to application, as follows:

(1) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, diluent, reducer, thinner, and other material applied on an as-purchased basis in accordance with 40 CFR subpart 63.827.

(2) Calculate the monthly average as-applied organic HAP content, of each ink, coating, varnish, adhesive, primer, and other solids-containing material using Equation 3 contained in 40 CFR Subpart 63.825.

(c)

(1) Demonstrate that each ink, coating, varnish, adhesive, primer, and other solids-containing material applied, either

(i) Contains no more than 0.04 weight-fraction organic HAP on a monthly average as-applied basis, or

(ii) Determine the as-applied solids content following the procedure in 63.827(c)(2) of all materials which do not meet the requirements of paragraph (c)(1)(i) of this section. The owner or operator may calculate the monthly average as-applied solids content of materials which are reduced, thinned, or diluted prior to application, using Equation 4, of 40 CFR Subpart 63.825

(iii) Calculate the as-applied organic HAP to solids ratio, for all materials which do not meet the requirements of paragraph (c)(1)(i) of this section, using Equation 5, of 40 CFR Subpart 63.825.

(d) Demonstrate that the monthly average as-applied organic HAP content of all materials applied is less than 0.04 kg HAP per kg of material applied, as determined by Equation 6, of 40 CFR Subpart 63.825.

(e) Demonstrate that the monthly average as-applied organic HAP content on the basis of solids applied is less than 0.20 kg HAP per kg solids applied as determined by Equation 7, of 40 CFR 63.825.

(f) Demonstrate that the total monthly organic HAP applied as determined by Equation 8, contained in 40 CFR 63.825.

(g) Operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at least 95 percent for each month. If the affected source operates more than one control device, and has only always-controlled work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of Condition #005.

(h) Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.02 kg organic HAP emitted per kg solids applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more intermittently-controllable work stations, then the owner or opertor shall demonstrate compliance in accordance with the provisions of paragraph (f) of §63.825. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of §63.825 when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of §63.825 when emissions are controlled by an oxidizer.

(i) Operate a capture system and control device and limit the organic HAP emissions rate to no more than 0.04 kg organic HAP emitted per kg material applied as determined in a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of §63.825. Otherwise, the owner or operator shall dmonstrate compliance following the procedure in paragraph (c) of §63.825 when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of §63.825 when emissions are controlled by an oxidizer.

(j) Operate a capture system and control device and limit the monthly organic HAP emission to less than the allowable emissions as calculated in accordance with paragraph (e) of §63.825. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of §63.825. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of §63.825 when emissions from the effected source are controlled by a solvent recovery device or the procedure in paragraph (d) of §63.825 when emissions are controlled by an oxidizer.

#005 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825]
Subpart KK – National Emission Standards for the Printing and Publishing Industry
Standards: Product and packaging rotogravure and wide-web flexographic printing.

In the event that a control device is used for demonstration of compliance with the standard, compliance with the overall organic HAP control efficiency requirement in Condition #001, each owner or operator using an oxidizer to control emissions for the purposes of compliance with 40 CFR 63.825 shall show compliance by following the procedures below:

(a) Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters following the procedures below:

(1) Determine the oxidzer destruction efficiency (E) using the procedure in 63.827(d) of CFR Part 63.

(2) Determine the capture system capture efficiency (F) in accordance with 63.827(e)-(f) of 40 CFR Part 63.

(3) Calculate the overall organic HAP control efficiency, (R), achieved using Equation 13 of 40 CFR Subpart 63.825.

(4) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on materials applied or emission of less than the calculated allowable organic HAP, measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material applied on the press or group of presses controlled by a common solvent recovery device during the month.

(5) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in 63.827(b)(2) of 40 CFR Part 63.

(6) If demonstrating compliance on the basis of organic HAP emission rate based on solids or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in 63.827(c)(2) of 40 CFR Part 63.

(7) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, calculate the organic HAP emitted during the month, H, for each month using equation Equation 14 of 40 CFR Subpart 63.825.

(8) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L, for each month using Equation 15 of 40 CFR Subpart 63.825.

(9) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S, using Equation 16 of 40 CFR Subpart 63.825.

(10) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameters established in accordance with 63.828(a)(4)-(5) whenever a product and packaging rotogravure or wide-web flexographic press is operating.

(11) The affected source is in compliance, if the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with 63.828(a)(4) for each three- hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with 63.828(a)(5) for each three hour period, and

(i) The overall organic HAP control efficiency, R, is 95 percent or greater, or

(ii) The organic HAP emission rate based on solids applied, L, is 0.20 kg organic HAP per kg solids applied or less, or

(iii) The organic HAP emission rate based on material applied, S, is 0.04 kg organic HAP, Ha, as determined using paragraph (e) of this section.

(b) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency. Compliance shall be demonstrated in accordance with the requirements of paragraph (c)(2) of this section.

#006 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825]
Subpart KK – National Emission Standards for the Printing and Publishing Industry
Standards: Product and packaging rotogravure and wide-web flexographic printing.

In the event that a control device is used for demonstration of compliance with the standard, an owner or operator complying with the requirements of Condition #001 through the use of an oxidizer and demonstrating continuous compliance through monitoring of an oxidizer operating parameter shall:

(a) For an oxidizer other than a catalytic oxidizer, install, clibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of 1 percent of the temperture being monitored in C or 1 C, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone.

(b) For a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of 1 percent of the temperature being monitored in C or 1 C, whichever is greater. The thermocouple or termperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet.

IV. Recordkeeping Requirements

#007 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825]
Subpart KK – National Emission Standards for the Printing and Publishing Industry
Standards: Product and packaging rotogravure and wide-web flexographic printing.

For each facility which meets the criteria of condition #001, the owner or operator shall maintain records needed to demonstrate compliance with this standard. These records may include material usage, HAP usage, volatile matter usage, and solid usage. If demonstrating compliance using control equipment, these records may also include continuous emission monitor data, and control device and capture system operating parameter data. The owner/operator shall maintain these records for the most recent five year period and shall be made available to a Department representative upon request.

V. Reporting Requirements

No additional reporting requirements exist except as provided in other sections of this permit including reporting conditions under the Title V General requirements section of this permit.

VI. Work Practice Standards

No additional work practice requirements exist except as provided in other sections of this permit including work practice standards under the TitleV General Requirements section of this permit.

VII Additional Requirements

No additional requirements exist except as provided in other sections of this permit including additional requirements under the Title V General Requirements section of this permit.